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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|----------------------------|------------------|
| 10/659,147 | 09/10/2003 | Stephen Bruck | BAE-11002/15 | 3052 |
| 25006 | 7590 | 04/05/2006 | | |
| GIFFORD, KRASS, GROH, SPRINKLE & CITKOWSKI, P.C PO BOX 7021 TROY, MI 48007-7021 | | | EXAMINER EDEL, JOSEPH F | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3636 | |

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/659,147 | BRUCK ET AL. | |
| | Examiner | Art Unit | |
| | Joseph F. Edell | 3636 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the seat bottom and the pivotally secured seatback must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 1, 5, and 13 are objected to because of the following informalities:
- a. claim 1, line 13, "its exterior configuration" should read --an exterior configuration of the cam--;
 - b. claim 5, line 3, "pivotally secured seatback" should read --a pivotally secured seatback--;
 - c. claim 13, line 17, "its exterior configuration" should read --an exterior configuration of the cam--.
- Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 5-9, 11, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,178,596 B1 to Choi.

Choi discloses a seatback recliner including all the limitations recited in claims 1, 2, 5-9, 11, and 13. Choi shows a seatback recliner having a frame with a seatback arm 110a,200 (see Fig. 2) and inner and outer plates (Fig. 5), a lower arcuate surface of the seatback arm being defined by a first plurality of serrations 340a, a pawl 300 with an elongated body with a first end hingedly secured to the frame and incorporating a

second plurality of serrations 340, an interior aperture 330 (Fig. 3) defined by an enclosed inner wall configuration, a cam 400 rotatably secured to the frame in seating fashion within the inner wall configuration and being completely contained within the interior aperture associated with the pawl, a lever 500 pivotally secured to the cam and extending from the frame, a main pivot pin 130 extending through aligned apertures in the inner and outer plates, a main coil spring 600 secured to an exterior face of the outer plate and biasing the seatback arm in a forwardly pivoting direction, a secondary coil spring 510 secured to the exterior face of the outer plate and biasing the lever in a counter-clockwise direction, and a rivet (Fig. 2) with a projecting end extending an end of the main coil spring associated with top rear locations of the inner and outer plates wherein the exterior configuration of the cam engages the inner wall configuration of the pawl to bias the second plurality of serration in abutting contact against the first plurality of serrations and being rotatable in a second direction to cause the pawl to hingedly disengage from abutting contact with the seatback arm, the inner and outer plates sandwich the pawl, cam, and seatback, the main pivot pin also meets the claim 7 limitation of a cam pivot pin extending through a central aperture defined in the cam and additional apertures in the inner and outer plates and engaging the lever, as well as the claim 9 limitation of a pawl rivet seating through an aperture (the interior aperture 300) in the pawl defining the hinged connection and seating in additional apertures in the inner and outer plates.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Choi in view of U.S. Patent No. 5,749,624 to Yoshida et al.

Choi discloses a recliner mechanism that is basically the same as that recited in claims 3 and 4 except that the pawl and cam lacks three co-acting projections, as recited in the claims. See Figures 3 and 4 of Choi for the teaching that the exterior configuration of the cam 400 has first, second, and third projections which co-act with formed edges of inner wall configuration of the pawl 300. Yoshida et al. show a recliner mechanism similar to that of Choi wherein the cam 16 (see Fig. 5) and the pawl 20 each have first, second, and third co-acting projections. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the recliner mechanism of Choi such that the inner wall configuration of the pawl has first, second, and third projections, and the exterior configuration of the cam has first, second, and third projections which co-act with the projections of the pawl between first and second rotated directions, such as the recliner mechanism disclosed in Yoshida et al. One would have been motivated to make such a modification in view of the suggestion in Yoshida et al. that the cooperating projections of the cam and the

pawl provide for hooking forced disengagement when rotation of the seatback is desired.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Choi in view of U.S. Patent No. 6,412,849 B1 to Fast.

Choi discloses a recliner mechanism that is basically the same as that recited in claim 10 except that the inner and outer plates lacks spacer bushings, as recited in the claim. See Figure 5 of Choi for the teaching that the first and second plates include apertures housing projections 230. Fast shows a recliner mechanism similar to that of Choi wherein the first and second plates 34,36 (see Fig. 2) has aligning pairs of apertures engaging a pair of spacer bushings 38. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the recliner mechanism of Choi such that the inner and outer plates include aligning pair of apertures engaging spacer bushings, such as the recliner mechanism disclosed in Fast. One would have been motivated to make such a modification in view of the suggestion in Fast that the spacer bushings allows for proper positioning and fixedly connecting of the plates.

8. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Choi.

Choi discloses a recliner mechanism that is basically the same as that recited in claim 12 except that the engagement of an extending end of the secondary coil spring is not specified, as recited in the claim. See column 3, lines 65-67 of Choi for the teaching that an extending end of the secondary coil spring is connected to the seat. Therefore, it would have been obvious to one having ordinary skill in the art, if not inherent, at the

time the invention was made to modify the recliner mechanism of Choi such that the extending end of the secondary coil spring engages an angled projection associated with the outer plate. One would have been motivated to make such a modification in view of the suggestion that this engagement is a conventional and efficient method employed to connect biasing springs.

Response to Arguments

9. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to seatback recliner mechanisms:

U.S. Pat. No. 4,103,970 to Homier U.S. Pat. No. 4,175,301 to Letournoux et al.

U.S. Pat. No. 4,384,744 to Barley


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph F. Edell whose telephone number is (571) 272-6858. The examiner can normally be reached on Mon.-Fri. 8:30am-5:00pm.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JF

April 3, 2006



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